IN THE CLAIMS:

Please amend claims 1, 3, 5-6 and 8 as follows:

1.   (Currently Amended) A program embedded in a computer readable medium for displaying a dendrogram comprising:

a module for clustering a plurality of biopolymers with a first clustering method which is based on a set of gene expression data obtained by experiments on the plurality of biopolymers, and displaying clustering results thereof in a form of a dendrogram that is clustered based upon gene expression data of individual biopolymers in a display window;

a module for selecting a subtree in the dendrogram in the display window;

a module for displaying the selected subtree in the dendrogram in a separate display window thereby allowing a user to see in the separate display window more details of the selected subtree;

a module for grouping biopolymers in the selected subtree in the separate display window into at least one function group sharing one of functional characteristics consisting of enzymatic, metabolic, transporting, and cell cycle functions; and

a module for displaying said function group of biopolymers in the separate display window thereby confirming by the user that said function group in the selected subtree shares said one of functional characteristics consisting of enzymatic, metabolic, transporting, and cell cycle functions.

2.   (Previously Presented) A program embedded in a computer readable medium for displaying a dendrogram according to claim 1, further comprising:

a module for designating a second clustering method, which is different from the first clustering method, for further clustering the biopolymers in the selected subtree in the separate display window.

3.   (Currently Amended) A program embedded in a computer readable medium for displaying a dendrogram comprising:

a module for clustering a plurality of biopolymers based on a set of gene expression data obtained by experiments on the plurality of biopolymers, and

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displaying clustering results thereof in a form of a dendrogram that is clustered based upon gene expression data of individual biopolymers in a display window;

a module for selecting a subtree in the dendrogram in the display window;

a module for replacing the selected subtree in the dendrogram with an icon thereby displaying the dendrogram with the icon as a simplified presentation rather than with the selected subtree;

a module for grouping biopolymers in the simplified presentation in the display window into at least one function group sharing one of functional characteristics consisting of enzymatic, metabolic, transporting, and cell cycle functions; and

a module for displaying said function group of biopolymers in the simplified presentation in the display window thereby confirming by a user that said function group in the selected subtree shares said one of functional characteristics consisting of enzymatic, metabolic, transporting, and cell cycle functions.

4.   (Previously Presented) A program embedded in a computer readable medium for displaying a dendrogram according to claim 3, further comprising a module for restoring the selected subtree back from the replacing icon in the dendrogram in the display window.

5.   (Currently Amended) A program embedded in a computer readable medium for displaying a dendrogram comprising:

a module for clustering a plurality of biopolymers based on a set of gene expression data obtained by experiments on the plurality of biopolymers, and displaying clustering results thereof in a form of a dendrogram in a display window;

a module for selecting a subtree in the dendrogram in the display window;

a module for searching within respective information of biopolymers contained in the selected subtree for keywords available in a keyword dictionary file; and

a module for counting biopolymers in the selected subtree whose respective information contains at least one of the searched keywords and displaying each of the searched keywords with a corresponding count of the biopolymers whose respective information contains at least one of the searched keywords;

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a module for grouping biopolymers in the selected subtree into at least one function group sharing one of functional characteristics consisting of enzymatic, metabolic, transporting, and cell cycle functions;

a module for displaying said function group of biopolymers in the display window; and

a module for displaying the searched keywords available in the selected subtree and said count in a separated display window on top of the display window displaying said function group of biopolymers therein;

a module for highlighting in the display window a location of each of the biopolymers in the selected subtree whose respective information contains the searched keywords;

a module for displaying the highlighted keywords together with said function group of biopolymers in the selected subtree thereby confirming by a user that biopolymers sharing said one of said functional characteristics are grouped in the selected subtree,

wherein said respective information includes a unique nucleotide sequence identifier and a description of a corresponding nucleotide sequence, said description includes a source organism, a gene name/protein name, or a function.

6. (Currently Amended) A program embedded in a computer readable medium for displaying a dendrogram comprising:

a module for clustering a plurality of biopolymers based on a set of gene expression data obtained by experiments on the plurality of biopolymers, and displaying clustering results thereof in a form of a dendrogram in a display window;

a module for selecting a subtree in the dendrogram in the display window;

a module for designating at least one keyword from a keyword dictionary file;

a module for searching within respective information of biopolymers contained in the selected subtree for biopolymers whose respective information contains the designated keyword; and

a module for highlighting in the display window a location of each of the biopolymers in the selected subtree whose respective information contains the designated keyword;

a module for grouping biopolymers in the selected subtree into at least one function group sharing one of functional characteristics consisting of enzymatic,

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metabolic, transporting, and cell cycle functions;

a module for displaying the highlighted keywords together with said function group of biopolymers in the selected subtree in the display window thereby confirming by a user that biopolymers sharing said one of said functional characteristics are grouped in the selected subtree,

wherein said respective information includes a unique nucleotide sequence identifier and a description of a corresponding nucleotide sequence, said description includes a source organism, a gene name/protein name, or a function.

7.   (Previously Presented) A program embedded in a computer readable medium for displaying a dendrogram according to any one of claims 1 to 6, wherein the biopolymers are cDNAs, RNAs, DNA fragments or genes.

8.   (Currently Amended) A computer-implemented system for displaying a dendrogram comprising:

a clustering processor for clustering a plurality of biopolymers based on a set of gene expression data obtained by experiments on the plurality of biopolymers, and analyzing and displaying clustering results thereof in a form of a dendrogram in a display window;

a display system for displaying the dendrogram, for displaying on a separate window a subtree selected by a user in the display window thereby allowing the user to see in the separate display window more details of the selected subtree, for grouping biopolymers in the selected subtree in the separate display window into at least one function group sharing one of functional characteristics consisting of enzymatic, metabolic, transporting, and cell cycle functions, and for displaying said function group of biopolymers in the separate display window thereby confirming by the user that said function group in the selected subtree shares said one of functional characteristics consisting of enzymatic, metabolic, transporting, and cell cycle functions; and

a keyword dictionary file for storing keywords of respective information associated with each of the plurality of biopolymers, said respective information including a unique nucleotide sequence identifier and a description of a corresponding nucleotide sequence, said description includes a source organism, a gene name/protein name, or a function.

9.   (Previously Presented) A computer-implemented system for displaying a dendrogram according to claim 8, further comprising input means for selecting the subtree by the user.

10.   (Previously Presented) A computer-implemented system for displaying a dendrogram according to claim 8, further comprising means for designating a different clustering method for said grouping biopolymers in the selected subtree displayed on the separate window to secondarily cluster biopolymers included in the subtree, wherein the display system displays secondarily clustered biopolymers in the selected subtree in a form of a dendrogram.

11.   (Previously Presented) A computer-implemented system for displaying a dendrogram according to any one of claims 8 to 10, further comprising means for replacing the selected subtree with an icon as a simplified presentation, and means for restoring the selected subtree back from the replacing icon in the dendrogram in the display window.

12.   (Previously Presented) A computer-implemented system for displaying a dendrogram according to any one of claims 8 to 10, further comprising means for designating keywords from the keyword dictionary file, means for searching within respective information of biopolymers contained in the selected subtree for biopolymers whose respective information contains at least one of the designated keywords, means for counting biopolymers in the subtree whose respective information contains at least one of the designated keywords, wherein the display system displays each of the designated keywords with a corresponding count of the biopolymers whose respective information contains at least one of the designated keywords, and highlights a location of each of the biopolymers in the selected subtree whose respective information contains at least one of the designated keywords thereby confirming biopolymers sharing said one of said functional characteristics are grouped in the selected subtree.

13.   (Previously Presented) A computer-implemented system for displaying a dendrogram according to any one of claims 8 to 10, wherein the biopolymers are cDNAs, RNAs, DNA fragments or genes.

14.   (Previously Presented) A program embedded in a computer readable medium for displaying a dendrogram according to claim 5, wherein the counting module involves counting biopolymers in the selected subtree whose respective information contains synonyms of said one of the selected keywords.

15.   (Previously Presented) A computer-implemented system for displaying a dendrogram according to claim 12, wherein the means for counting counts biopolymers in the selected subtree whose respective information contains synonyms of each of the designated keywords.